SEMESTER I
COURSE I
FOUNDATIONS OF EDUCATION, PHYSICAL EDUCATION & SPORTS

OBJECTIVES:
1. To understand the relationship between Philosophy, Education and Physical Education.
2. To acquaint the learner with the goals of education and Physical Education.
3. To understand the contribution of Philosophers of Education and Physical Education.
4. To acquaint the learner with History of Physical Education.
5. To understand the modern development and social aspects of Physical Education.

I PHILosophical Foundation (12 Hours)
   a. Meaning and Need of Philosophy in Physical Education
   b. Physical Education and traditional schools of Philosophy – Physical Education as
      Idealism, Naturalism and Pragmatism
   c. Curriculum – Putting Philosophy into action
   d. Physical Education and Social Philosophy and Philosophy of Education

II HISTORICAL FOUNDATION (12 Hours)
   a. Meaning, Aim and Objectives of Physical Education
   b. History of Indian Physical Education
   c. History of ancient Olympic games
   d. Modern Olympic, Asian Games and Common Wealth Games

III COMMISSION, AWARDS, SPORTS POLICIES AND CONTRIBUTION (12 Hours)
   a. Commissions – Dr. Kunzaru commission, Kothari commission
   b. Awards and trophies of sports at various level – Shiv Chhatrapati Award, Arjun Award,
      Dadoji Konddev Award, Dronacharya Award, Eklavya, Rajiv Gandhi Khel Ratna
      Puraskar Trophies – Ranji Trophy, Santosh Trophy, Agakhan Gold Cup and Devis Cup
   c. Various current, schemes and sports policies of State and Central Government
      pertaining to Physical Education and Sports
   d. Contribution of LNIPE, YMCA, NSNIS and SAI in promoting Physical Education and
      Sports

IV SOCIOLOGICAL FOUNDATION (12 Hours)
   b. Factors affecting social change through Physical Education
   c. Relationship of sports with culture
   d. Components and Importance of Philosophy in Physical Education

V ROLE OF TEACHING IN SOCIETY (12 Hours)
   a. Professional ethics
   b. Ethics and values related to sports, Sportsman Spirit
   c. Role of teacher in changing society through Physical Education and Sports
   d. Values and Principles of Philosophy
SEMESTER I
COURSE II
YOGA EDUCATION AND ENVIRONMENTAL STUDIES (60 Hours)

OBJECTIVES:
1. To understand the concept and nature of yoga along with its historical background.
2. To gain knowledge regarding the application of yoga to Physical Education and Sports.
3. To understand the anatomy and Physiology of Asanas and Pranayamas.
4. To acquire the skills needed to understand and to overcome environmental problems.
5. To gain knowledge regarding the effect of yogic practices on health aspects.

I. Introduction of Yoga: (12 hours)
   a. Concept of yoga, physical Education and health
   b. Misconceptions about Yoga
   c. Physical Education Exercise and Yogic Exercises
   d. Meaning of meditation and its types and principles

II. Yoga and Exercise for Health: (12 hours)
   a. Yoga as a Science of Art (Yoga Philosophy)
   b. Concept of exercise in Physical Education and its comparison with yogic exercise
   c. Principles governing various exercises in yoga like Asana, Pranayam, Bandha, Mudra, Kriya and Meditation
   d. Role of yoga and exercise in relation to health

III. Effect of Yogic Exercise: (12 hours)
   a. Principles of Yogic Practices
   b. Emotional stability and yogic exercises
   c. Effect of various yogic exercises on different system of the body.
   d. Yoga for Stress Management

IV. Application of Yoga: (12 hours)
   a. Yogic therapies and modern concept of Yoga
   b. Application of yoga in sports and Physical Education
   c. Therapeutical application of yoga
   d. Yogic Methods and Techniques for Total Living

V. Environmental Health: (12 hours)
   a. Need and Importance of Environmental Health, public health and Environment
   b. Fundamental concepts of pollution, types and its measures
   c. Meaning of occupational hazards and its Measures
   d. Social issues and the Environment
SEMESTER I

COURSE III

RECREATION AND CAMPING

Unit-I Introduction of Recreation
   1.1 Meaning, Definition, Objective, Scope, and Importance of Recreation.
   1.2 Historical development of recreation- India.
   1.3 General Principles of Recreation.

Unit-II Organization and administration of Recreation –
   2.1 Agencies offering recreation, Home, Government, Voluntary, Private, Commercial, Rural, Urban and Industrial areas. Facilities Equipments.
   2.2 Types of Recreation – Indoor, Outdoor, Arts, Crafts, Drama, Music, Hobbies, Aquatics, Dancing.
   2.3 Evaluation of Recreation Programme.

Unit III Play-
   3.1 Meaning, Definition, Importance,
   3.2 Difference/Relationship between Play and Work,
   3.3 Theories of Play

Unit IV Introductions to Camping
   4.1 Meaning, Definition, Objective, Scope, and Significance of Camping
   4.2 Types of Camping
   4.3 Selection and Lay-out of Camp sites.

Unit –V Organization and administration of camps.
   5.1 Camp programme and activities.
   5.2 Evaluation of Camp work.
   5.3 Leadership – Meaning, Definition, Needs, Types and their qualification and qualities.
SEMESTER II
COURSE V
ANATOMY, PHYSIOLOGY AND HEALTH EDUCATION
(60 Hours)

OBJECTIVES:
1. To enable the learner to understand the basic structure and function of human body.
2. To acquire the knowledge regarding effect of exercise on the body as a whole.
3. To enable the learner to understand the need and importance of health education and community health.
4. To acquaint the learner with school health programme.
5. To acquire the knowledge regarding awareness, precaution & understanding HIV/ AIDS preventive education.

I  Introduction to human body (12 Hours)
   a. Meaning, need and Scope of anatomy and its study in physical education
   b. Anatomy Terminology
   c. Anatomy, Heredity and sports
   d. importance of study of anatomy in physical education and sports

II  Body systems- structure, function and effect of exercise (12 Hours)
   a. Musculoskeletal system:-
      i. Classification and functions of bones and joints
      ii. Movements at various joints
      iii. Structural classification of muscle and types of muscles
      iv. Effect of exercise on musculo-skeletal system
   b. Cardio- respiratory system:-
      i. Structure, working and function of human heart
      ii. Processes of circulation
      iii. Respiration - Mechanism and types and respiratory volumes
      iv. Effect of exercise on cardio-respiratory system
   c. Digestive system:-
      i. Digestion, effect of digestive juice and enzymes on food
      ii. Balance diet and diet for athlete
      iii. Effect of exercise on digestive system
   d. Nervous system:-
      i. Central nervous system- structure and function
      ii. Autonomic nervous system- Structure and function
      iii. Effect of exercise on nervous system

III  Applied and structural kinesiology (12 Hours)
   a. Meaning, scope and importance of kinesiology in physical education and sports
   b. Aim, objectives and need of kinesiology
   c. Role of Kinesiological in Games and Sports
   d. Kinesiological and movement analysis

IV  Principles Related Human Motion (12 Hours)
   a. Motion- Meaning types, laws and principles
   b. Force- Types, principles of force
   c. Lever- Classification, and utility of lever in sports
   d. Mechanical principles related to fundamental skills in running, jumping and throwing

V  Health Education (12 Hours)
   a. Meaning and principles of health
   b. Objectives and necessity of school health programme
   c. Postural deformities and corrective measures
SEMESTER II
COURSE VI
OFFICIATING, COACHING AND SPORTS TRAINING (60 Hours)

OBJECTIVES:

1. To understand the basic concept and principles of officiating and coaching of different games and sports.
2. To enable the students to understand the rules, regulations and officiating of different games and sports.
3. To acquaint the students with the duties and responsibilities of an officials and coaches.
4. To acquaint the students with dimensions and actual markings of different play fields, courts and arenas.
5. To understand the concept, principles and forms of sports training.

I Theory of officiating (12 Hours)
   a. Meaning, purpose and principles of officiating
   b. Duties and responsibilities of officials
   c. Qualification and qualities of officials
   d. Professional growth of officials
   e. Rules and regulations of various games and sports (included in the syllabus of Semester I & II)

II Theory of Coaching (12 Hours)
   a. Meaning, purpose, Philosophy and Principles of coaching
   b. Qualification, qualities and responsibilities of coach
   c. Techniques, tactics and periodization.
   d. Positional play and system of play, Selection of team
   e. Promoting interest in the games and sports

III Conditioning Exercise (12 Hours)
   a. Warm-up exercises- Meaning, importance and types
   b. Meaning and importance of conditioning exercise
   c. Training methods- Circuit Training, Fartlek Training, Weight Training, Interval Training
   d. Limbering down exercises- Meaning, importance and types

IV Theory of Sports Training (12 hours)
   a. Meaning, definition and Characteristics of sports training.
   b. Principles of sports training
   c. Sports talent identification process and procedures
   d. Periodization and its types

V Theory of technique and Training Load (12 hours)
   a. Concept of Technique, Tactics and Strategy
   b. Important Features and Principles of Training Load
   c. Overload: Principles, causes symptoms and tackling of over load
   d. Methods and specific training programme for development of various motor qualities
SEMESTER II
COURSE VII
ORGANIZATION, ADMINISTRATION AND MANAGEMENT IN PHYSICAL EDUCATION

(60 Hours)

OBJECTIVES:
1. To understand the importance of management of Physical Education.
2. To gain knowledge regarding management of Physical Education and Sports at different level.
3. To gain knowledge regarding the organization of various Physical Education programmes.
4. To gain knowledge of various schemes and plans of State/Central Government.
5. To gain the knowledge regarding planning and personal management, facility management and budget management.

I Management of Physical Education and sports (12 Hours)
   a. Meaning, Need and scope of management of Physical Education
   b. Principles of Sports Management
   c. Organization of Sports at National, State, District, Taluka and Village level by the State Government & other voluntary organization of sports
   d. Construction, marking and maintenance of play grounds, track & field, gymnasium, swimming pool and athletic track

II Organization of co-curricular activities and Physical Education programmes. (12 Hours)
   a. Physical Education Budget : Need, Importance, procedure and principles of budget making,
   b. Physical Education and sports programmes for - Primary, secondary and higher secondary School for sports awareness – demonstration, play days, sports rallies, sports exhibitions
   c. Organization of National days (15th August & 26th January), Organization of mass competition, sports day, hiking, trekking, Scout and Guide Camp and picnics
   d. Ceremonies of competition - Opening, closing and victory

III Administration in Physical Education (12 hours)
   a. Meaning, and importance of administration in Physical education and sports
   b. Types and essential of administration of sports
   c. Process of administration
   d. Qualification of administration

IV The Management Process: (12 hours)
   a. Concept and principles of management
   b. Organization and function of sports bodies
   c. Concept of techniques of supervision
   d. Meaning, need and importance of public relation

V Aspects in Physical education and Sports Management (12 hours)
   a. Meaning and organization of Intramural and Extramural
   b. Management of Equipment: Need, selection, purchase, storing, issuing, maintaining and supplier
   c. Management of Infrastructure, financial and personal
   d. Types of management: Authoritarian Management, Laissez- Fair
SEMESTER III
COURSE X
PSYCHOLOGY OF EDUCATION PHYSICAL EDUCATION
AND SPORTS

(60 Hours)

OBJECTIVES:

1. To develop an understanding of the nature, scope &
methods of psychology of education, physical education & sports.
1. To understand the nature, steps and factors facilitating and
obstructing learning.
2. To develop an understanding of the intelligence, creativity & the role of the teacher in
fostering them.
3. To develop an understanding of the concept of individual difference and its importance in
education, physical education and sports.
4. To develop an understanding of the concept of personality, factors affecting personality
development and the role of teacher in promoting mental health of students.

I INTRODUCTION TO PSYCHOLOGY AND GROWTH AND
DEVELOPMENT

(12 Hours)

a) Meaning, nature and scope of psychology
b) Relevance of psychology with education, physical education and sports
c) Methods of psychological study
   1. Introspection method
   2. Observation method
   3. Experimental method
d) Concept and principles of growth & development, various stages of growth
   and development with special reference to the childhood and adolescence
   stage and physical education activities for them

II LEARNING

(12 Hours)

a. Concept, steps of learning and learning curve.

b. Factors affecting learning and their implications in education, physical
   education and sports
   1. Maturation
   2. Attention
   3. Fatigue
   4. Motivation

b. Transfer of learning

c. Theories of learning:
   1. Theories of Association: Trial & Error theory – (E.L. Thorndike)
      Classical conditioning – (Pavlov theory), Operant conditioning – (Skinner)
   2. Cognitive theory: Learning by Insight – (Wolfgang Kohler)
   3. Social learning theory: Bandura

III INTELLIGENCE, CREATIVITY AND DIVERSITY OF LEARNER

(12 Hours)

a. Meaning and nature of intelligence

b. Theories of intelligence:
   i. J.P. Guilford’s structure of intellect
   ii. Gardner’s theory of multiple intelligence
   iii. Goleman’s theory of emotional intelligence

C. Creativity:
   i. Meaning and characteristics of a creative person
   ii. Process of creativity
   iii. Teachers role in fostering creativity
d. Individual Difference: Concept of individual difference and its importance in education, physical education and sports

IV PERSONALITY (12 Hours)
   a. Concept of personality, factors influencing personality development
   b. Assessment of personality
   c. Mental Health: Concept & Importance
   d. Mental conflicts and defense mechanisms

V MENTAL PROCESSES OF LEARNING, GROUP DYNAMICS AND EXPERIMENTS (12 Hours)
   a. Mental Process:
      1. Sensation and Perception
      2. Memory
      3. Forgetting
      4. Thinking
      5. Imagery & Imagination
   b. Characteristics and types of group
   c. Leadership & Sociometry
   d. Experiments (Questions to be asked on Educational Implications only)
      1. Attention
      2. Learning
      3. Transfer of Learning
      4. Imagination
      5. Fatigue
      6. Perception
SEMESTER III

COURSE XI

FITNESS, WELLNESS, NUTRITION AND WEIGHT MANAGEMENT

(60 Hours)

OBJECTIVES:
1. To understand the components of physical fitness.
2. To acquaint student with principles of sports nutrition.
3. To understand the application of human energy.
4. To understand the role of food in Physical performance.
5. To afford student the opportunity of understand the diet for various life cycle.

I Physical Fitness (12 Hours)
   a. Definition, meaning and concept of Physical fitness, Physical Activity and Exercise
      a. Components of HRPF, SRPF and Physical fitness
      b. Definition and concept of wellness and holistic health
      c. Factors affecting Physical Fitness and wellness

II Doping and Nutrition (12 Hours)
   a. Prevention and first-aid for common sports injuries
   b. Nutrition-components, balance diet and diet for athlete
   c. Meaning and definition of doping, ergogenic aids

III Development of Fitness (12 Hours)
   b. Benefits of physical fitness and exercise and principles of physical fitness
   c. Calculation of fitness index level 1-4
   d. Waist-hip ratio larger heart rate, BMI and types and principles of exercise (FITT)
   e. Methods of training – Continues, Interval, Circuit, Fartlek and Plyometric

IV Dietary Requirement: (12 hours)
   a. Need of Energy, Carbohydrate and Protein
   b. Manipulation of energy balance to Induce weight loss and weight gain
   c. Competition nutrition – Before week and the day, on the day of competition and after the competition

V Wellness and Weight Management (12 hours)
   a. Concept, meaning and Components of wellness
   b. Manipulation of energy balance to Induce weight loss and weight gain
   c. Methods of Weight Management
   d. Concept, types and causes of obesity and its management
SEMESTER III  
COURSE XII  
METHODOLOGY OF TEACHING PHYSICAL EDUCATION  
(60 Hours)

OBJECTIVES:
1. To understand the place of Physical Education in school curriculum.
2. To acquaint the learner with different methods of teaching physical activities.
3. To acquaint the students with planning, objectives of different types of lessons.
4. To acquaint the learner with organizing and conducting various types of tournaments and athletic meet.
5. To acquaint the learner with the constructions and marking of track and field events.

I Curriculum of Physical Education  
(12 Hours)
a. Place & Importance of Physical Education in the school curriculum 
b. Objectives of Teaching Physical Education at Secondary & Higher Secondary Education 
c. Curriculum of Physical Education for Secondary & Higher Secondary Education in Maharashtra State 
d. Steps of curriculum design

II Methods and Techniques of teaching Physical Education  
(12 Hours)
a. Methods of Teaching - Command, Orientation, Lecture, Demonstration, Discussion, Progressive part method, At-will method, whole-part-whole 
b. Planning and Presentation - Personal preparation, technical preparation, Steps of presentation 
c. Class management - Principles of class management and Classification of Pupils 
d. Principles and Steps in Effective teaching

III Teaching and Planning of various Physical Education activities.  
(12 Hours)
a. Teaching of Formal & informal activities, major and minor games, Track and field events, Rhythmic activities, Yoga 
b. Objectives of lesson plan 
c. Types and Preparation of lesson plan 
d. Year plan, Unit plan

IV Physical Education Teacher and Evaluation Process  
(12 Hours)
a. Qualities, qualifications, professional growth and Challenges faced by Physical Education teacher 
b. Meaning & Importance of Evaluation 
c. Tools and methods of evaluation as per school curriculum 
d. Preparation and Maintenance of records

V Organization of Tournaments, Competitions and Co-curricular activities  
(12 Hours)
a. Need & Importance of Tournaments 
b. Types of Tournaments 
c. Organisation of Intramural, Extramural 
d. Organisation of Co-curricular Activities (National days, National Sports days, Hiking, trekking, Picnic, Camping and Athletic meet etc)
SEMESTER IV
COURSE XIV
MEASUREMENT, EVALUATION AND STATISTICS
IN PHYSICAL EDUCATION

OBJECTIVES:

1. To understand the concept of Measurement, Evaluation and Assessment Procedure in Physical Education.
2. To understand different tests in Physical Education.
3. To acquire the knowledge of various tests regarding Physical fitness, motor and health related fitness.
4. To understand various sports skill tests.
5. To understand and application of simple statistical procedures for evaluation.

I. Introduction (12 Hours)
   a. Meaning, Need and importance of Test, Measurement and Evaluation in Physical Education
   b. Types, purpose and Principles of evaluation
   c. Criteria of test selection
   d. Classification of tests- Written test, Psychomotor test

II. Physical Fitness Test (12 Hours)
   a. Health Related Physical Fitness Test (as per school syllabus for std. V to XII)
   b. Motor fitness test (as per school syllabus std. V to XII)
   d. Cardio-vascular test - Harvard step test, Flexibility - Sit and Reach test, Agility - shuttle run test, Speed -sprint, 30 M flying start

III. Sports Skill Tests (12 Hours)
   a. SAI Basketball Skill test
   b. SAI football test
   c. SAI volleyball skill test
   d. Badminton - Miller wall Volley test

IV. Evaluation of Physical Education Activities (12 Hours)
   a. Importance and role of evaluation in Physical Education
   b. Evaluation procedure of Physical Education activities (as per school syllabus of std. V – XII)
   c. Internal and External evaluation
   d. Merits and demerits of evaluation

V. Statistics in Physical Education (12 Hours)
   a. Meaning, Concept, definition, importance and classification of statistics
   b. Meaning and kinds of data, frequency distribution, control tendency, application and interpretation of Mean, Mode, Median, Standard deviation and quartile deviation
   c. Normal Probability curve and its interpretation, Percentile and percentile rank
   d. Diagrammatic presentation of Data – Bar, two dimensional, three dimensional and Histogram, Frequency Polygon
SEMESTER IV
COURSE - XV
SPORTS MEDICINE, PHYSIOTHERAPY AND REHABILITATION
(60 hours)

OBJECTIVES:
1. To understand the nature and importance of sports medicine in Physical Education and Sports.
2. To gain knowledge regarding the medical problems of athletes and its rehabilitation.
3. To acquire knowledge regarding sports injuries and their management.
4. To gain knowledge regarding the therapeutic modalities.
5. To understand medical problems and its rehabilitation.

I Introduction: (12 hours)
   a. Concept, aim, objectives of Sports Medicine
   b. Need & importance of Sports Medicine
   c. Role of physician, athlete trainer & coaches, Team medical care- concept & approaches
   d. History of Sports medicine in India and abroad

II Injury & tissue response: (12 hours)
   a. Micro & macro trauma, over use trauma.
   b. Tissue response to stress Different steps of wound healing
   c. Regional, Specific injuries related to games and sports & their management (head, neck, face, thorax, abdomen, pelvis, upper & lower limbs)
   d. Prevention of sports injuries

III Therapeutic modalities & rehabilitation: (12 hours)
   a. Hydrotherapy, Cryotherapy, thermotherapy, Contrast & paraffin bath
   b. Son bath, Jacuzzi bath & Whir-pool bath
   c. Diathermy, infra-red, ultra sound
   d. Approach to rehabilitation

IV Medical Problem and Rehabilitation: (12 hours)
   a. Lower Back, old age and postural problems and there corrections
   b. Advantages and Disadvantages of exercises
   c. Massage manipulations and therapeutic exercises
   d. Psychiatric rehabilitation

IV Sports Medicine: (12 hours)
   a. Role of sports Medicine in talent searching
   b. Importance of recovery
   c. Sports Massage
   d. Doping in sports
SEMESTER IV
COURSE -XVI
KINESIOLOGY AND BIOMECHANICS

OBJECTIVES:
1. To understand the nature and scope of Biomechanics in Physical Education & Sports.
2. To understand the importance of movement analysis, kinesiological analysis and biomechanical Analysis.
3. To understand the knowledge regarding antagonistic and agonistic muscles in the movements.
4. To gain knowledge of the application of mechanical principles to fundamental skills and sports techniques.
5. To understand basic mathematical problems related to motion, force and levers.

I Introduction of Biomechanics: (12 hours)
   a. Meaning, Definition, Scope and importance of Biomechanics in Physical Education and Sports
   b. Basic concepts related to Kinetics and Kinematics
   c. Laws of motion, principles of equilibrium and force, spin and elasticity
   d. Role of biomechanics in improving sports performance

II Human movement and biomechanics: (12 hours)
   a. Mechanical analysis of various sports activities
   c. Mechanical analysis of fundamental movements - (running, jumping, throwing, pulling and pushing)

III Introduction of Kinesiology: (12 hours)
   a. Meaning, Definition, Scope and importance of Kinesiology in Physical Education and Sports
   b. Aim, objectives and need of kinesiology
   c. Fundamental concept of Planes and Axes
   d. Posture, postural deformation and their corrective measures

IV Structural kinesiology (12 Hours)
   a. Kinds of Muscular contraction
   b. Kinesiological and movement analysis
   c. Joints and their movements
   d. Classification and characteristics of skeleton muscles

V Applied kinesiology: (12 hours)
   a. Neuromuscular base of kinesiology - process of muscular contraction
   b. Application of kinesiology to basic skills - Walking, Jumping, Running and Throwing
   c. Elementary problems related to motion, speed, velocity, force and projectiles